

MASTER OF SCIENCE IN SOFTWARE ENGINEERING

A GUI INTERFACE FOR REUSABLE COMPONENTS STORAGE AND RETRIEVAL IN THE CAPS SOFTWARE BASE

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With the increase in size and complexity of software component repositories, the need for an easy to use search and retrieval process becomes a necessity. Multilevel filtering shows great promise as a quick accurate search algorithm. This approach applies a series of filters starting with high recall, low precision syntactic techniques, moving through a range of more computationally expensive high precision syntactic filters.

The goal of this thesis is to develop a graphical user interface, using multilevel filtering, to make searching the CAPS component repository a less tedious task. The interface will make the retrieval process less error prone. The user would not need to be an expert in how the software base works thus increasing the ease of use and productivity. The current prototype system has a limited user interface capability. This research will add a graphical user interface for both retrieval and maintenance.

DoD KEY TECHNOLOGY AREA: Computing and Software

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